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EXAMINER				
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ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/520,490

Applicant(s)

SPALINK ET AL.

Examiner

STEVEN C. NGUYEN

Art Unit

2443

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. This action is responsive to the amendments and remarks filed on 02/27/2009.
2. **Claims 1-10, 12-24** are pending in this Office action.
3. **Claims 1-10, 12-24** have been amended.
4. **Claims 11, 25** have been cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-5, 12-17, 21-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Lo (both cited in previous Office action).
6. **Regarding Claim 1**, Hameleers disclosed:
 - a. a network device for a device network, comprising: a content detection layer adapted to detect the content type of external traffic received by said network device (*Column 15, Lines 12-16 state that the multi link distributing layer [content detection layer] can identify the type of each media stream*), and to pass said external traffic, in dependence of the detected content type, to a content specific convergence layer adapted to handle the respective content type (*Column 15, Lines 12-16 state that the multi link distribution layer distributes the*

Art Unit: 2443

media streams to certain channels based on type of stream and quality of service requirements); and

b. at least two content specific convergent layers adapted to exchange network traffic with other network devices of said device network via content specific connections wherein said content specific connections are adapted to the requirements of the respective content type wherein (Column 15, Lines 21-22 state that there are separate channels [convergence layers] that specialize in data and control, audio, or video).

Hameleers did not explicitly disclose:

c. the at least two content specific convergence layers include a common part adapted to segment a data packet of said external traffic into a plurality of corresponding data packets of a device network's internal protocol, and adapted to reassemble data packets of said network's internal protocol into corresponding data packets of the respective external traffic.

d. the common part is adapted to segment data packets of said external traffic and reassemble data packets of said device network's internal protocol for each of said at least two content specific convergence layers.

However, Lo disclosed:

e. the at least two content specific convergence layers include a common part adapted to segment a data packet of said external traffic into a plurality of corresponding data packets of a device network's internal protocol,

Art Unit: 2443

and adapted to reassemble data packets of said network's internal protocol into corresponding data packets of the respective external traffic (Column 6, Lines 5-15 state that the bridge circuit disassembles and reassembles the data and formats the packet to be read by the destination),

f. the common part is adapted to segment data packets of said external traffic and reassemble data packets of said device network's internal protocol for each of said at least two content specific convergence layers
(Column 6, Lines 5-15 state that the bridge circuit disassembles and reassembles the data and formats the packet to be read by the destination).

g. The utilization of the readily available common part that segments and reassembles data of Lo would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to ensure that the user would not have to worry about matching the same protocol as the destination user in order to send information across the network.

7. Regarding Claim 2, the limitations of Claim 1 have been addressed.

Hameleers disclosed:

Art Unit: 2443

a. wherein one of said content types is real time critical data and said at least two content specific convergence layers include a convergence layer adapted to handle real time critical data (*Column 15, Lines 21-22 state that there is a separate channel for video streams*).

8. Regarding Claim 3, the limitations of Claim 1 have been addressed.

Hameleers disclosed:

a. wherein one of said content types is packet based data, wherein said at least two content specific convergence layers include a convergence layer adapted to handle packet based data (*Column 15, Lines 21-22 state that there is a separate channel for data and control streams*).

9. Regarding Claim 4, the limitations of Claim 1 have been addressed.

Hameleers disclosed:

a. wherein said external traffic is at least one of Ethernet traffic, IEEE 1394 traffic, UMTS traffic, or PPP traffic (*Column 12, Lines 22-24 state that the invention incorporates the UMTS*).

10. Regarding Claim 5, the limitations of Claim 1 have been addressed.

Hameleers disclosed:

a. wherein said network device includes hardware connectivity for at least one of Ethernet traffic, IEEE 1394 traffic, UMTS traffic, or PPP traffic (*Column 12, Lines 22-24 state that the invention incorporates the use of UMTS. As the invention is using UMTS, the network device must have hardware connectivity in order to be able to function*).

11. Regarding Claim 12, the limitations of Claim 1 have been addressed.

Hameleers disclosed:

a. wherein said content specific convergence layers are operable to be used simultaneously within the same device network (Column 15, Lines 21-22 state that there are three separate channels that deal with data and control, audio, or video. As these channels are used within the invention, they can be used simultaneously within the same network).

12. Regarding Claim 13, Hameleers disclosed:

a. a device network, including at least a first and a second network device, the first network device comprising: a content detection layer adapted to detect the content type of external traffic received by said first network device, and to pass said external traffic, in dependence of the detected content type, to a content specific convergence layer adapted to handle the respective content type (Column 15, Lines 12-22 state that the multi link distribution layer distributes the media streams to certain channels based on type of stream and quality of service requirements. Each channel specializes in data and control, audio, or video);

b. at least two content specific convergence layers adapted to exchange network traffic with said second network devices of said device network via content specific connections, wherein (Column 20, Lines 8-16 state that there is another terminal that exchanges data with the first terminal).

c. said content specific connections are adapted to the requirements of the respective content type (Column 15, Lines 21-22 state that

Art Unit: 2443

there are separate channels [convergence layers] that specialize in data and control, audio, or video);

d. the second network device comprising: at least two further content specific convergence layers adapted to exchange network traffic with said first network device of said device network via content specific connections wherein *(Figure 4a-b and Column 20, Lines 8-16 state that the second network device includes the same convergence layers as the first network device [audio, video, data] and receives the content through the same streams of information);*

e. said content specific connections are adapted to the requirements of the respective content type *(Column 15, Lines 21-22 state that there are separate channels [convergence layers] that specialize in data and control, audio, or video);*

Hameleers did not explicitly disclose:

f. the at least two content specific convergence layers of said first network device include a common part adapted to segment a data packet of said external traffic into a plurality of corresponding data packets of a device network's internal protocol, and adapted to reassemble data packets of said device network's internal protocol into corresponding data packets of the respective external traffic;

g. the common part is adapted to segment data packets of said external traffic and reassemble data packets of said device network's internal protocol for each of said at least two content specific convergence layers

Art Unit: 2443

h. the at least two content specific convergence layers of said second network device include a further common part adapted to reassemble data packets of said device network's internal protocol into corresponding data packets of a further external traffic.

i. the common part is adapted to reassemble data packets of said device network's internal protocol for each of said at least two further content specific convergence layers.

However, Lo disclosed:

j. the at least two content specific convergence layers of said first network device include a common part adapted to segment a data packet of said external traffic into a plurality of corresponding data packets of a device network's internal protocol, and adapted to reassemble data packets of said device network's internal protocol into corresponding data packets of the respective external traffic (Column 6, Lines 5-15 state that the bridge circuit disassembles and reassembles the data and formats the packet to be read by the destination),

k. the common part is adapted to segment data packets of said external traffic and reassemble data packets of said device network's internal protocol for each of said at least two content specific convergence layers (Column 6, Lines 5-15 state that the bridge circuit disassembles and reassembles the data and formats the packet to be read by the destination).

l. the at least two content specific convergence layers of said second network device include a further common part adapted to reassemble

Art Unit: 2443

data packets of said device network's internal protocol into corresponding data packets of a further external traffic. (Column 6, Lines 5-15 state that the bridge circuit disassembles and reassembles the data and formats the packet to be read by the destination),

m. the common part is adapted to reassemble data packets of said device network's internal protocol for each of said at least two further content specific convergence layers (Column 6, Lines 5-15 state that the bridge circuit disassembles and reassembles the data and formats the packet to be read by the destination).

n. The utilization of the readily available common part that segments and reassembles data of Lo would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to ensure that the user would not have to worry about matching the same protocol as the destination user in order to send information across the network.

13. Regarding Claim 14, the limitations of Claim 13 have been addressed. Hameleers disclosed:

a. wherein the at least two content specific convergence layers and the at least two further content specific convergence layers are adapted to set up and release content specific connections between the first and second network devices of said device network, with a content specific connection being set up between one of said at least two content specific convergence layers of said first network device which supports a certain content type, and the respective content specific convergence layer of said second network device which supports the same content type *(Figures 4a-b show that each terminal has their own set of content specific convergence layers, one each for audio, video, and data. As there is an uplink and a downlink, each respective content type goes to each respective content specific convergence layer that will be able to handle the stream and the quality of service that is required).*

14. Regarding Claim 15, the limitations of Claim 13 have been addressed.

Hameleers disclosed:

a. content specific convergence layers *(Column 15, Lines 21-22 as discussed in Claim 1)*

Hameleers did not explicitly disclose:

b. wherein the external traffic exchanged with said content specific convergence layer of said first network device is of a different kind than the further external traffic exchanged with said content specific convergence layer of said second network device

Art Unit: 2443

However, Lo disclosed:

c. wherein the external traffic exchanged with said content specific convergence layer of said first network device is of a different kind than the further external traffic exchanged with said content specific convergence layer of said second network device (*Column 6, Lines 5-15 state that the external traffic from the first device is different than the external traffic that is going to the second device. The bridge circuit disassembles and reassembles the frame to encapsulate the data payload with a header and trailer that corresponds to where the frame is destined*).

d. The utilization of the readily available external traffic of a first device being different from the external traffic of a second device of Lo would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to ensure proper compatibility.

15. Regarding Claim 16, the limitations of Claim 13 have been addressed above. Hameleers disclosed:

a. wherein the at least two content specific convergence layers and the at least two further content specific convergence layers are adapted to reserve a fixed bandwidth for said content specific connection in case said

Art Unit: 2443

content specific connection is for a content type which requires a quality of service feature (*Column 16, Lines 8-15 and Column 17, Lines 23-32 state that each connection has their own quality of service optimization characteristics*).

16. Regarding Claim 17, the limitations of Claim 13 have been addressed. Hameleers disclosed:

a. wherein the at least two content specific convergence layers and the at least two further content specific convergence layers are adapted to register for each content specific connection, the content type supported by said content specific connection (*Column 15, Lines 12-16 state that the multi link distribution layer distributes the media streams to certain channels based on type of stream and quality of service requirements. Any traffic transmitted via the multi link distribution layer can be passed to the corresponding content specific convergence layer dedicated to handling the respective content type*).

17. Regarding Claim 21, the claim is substantially similar to Claim 13 and is therefore rejected under the same rationale.

18. Regarding Claim 22, the limitations of Claim 21 have been addressed. Hameleers disclosed:

a. setting up the content specific connections between said first and second network devices before transmitting said network traffic between said first and second network devices in accordance with said content type (*as discussed in Claim 14*).

19. Regarding Claim 23, the limitations of Claim 21 have been addressed.

Hameleers disclosed:

a. releasing after the network traffic between said first and second network devices has been transmitted in accordance with said content type, said content specific connection between said two network devices is released (*this must occur as once the data is sent, there is no need to hold on to the connection as it can be used for another transmission*).

20. Regarding Claim 24, the claim is substantially similar to Claim 13 and is therefore rejected under the same rationale.

21. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Lo and Balog.

22. Regarding Claim 6, the limitations of Claim 1 have been addressed.

Hameleers did not explicitly disclose:

a. wherein said network device is an access point of said device network.

However, Balog does teach:

b. wherein said network device is an access point of said device network (*Paragraph 29, Lines 13-15 state that an access point is used in order to help determine where to route information*).

c. The utilization of the readily available network device being an access point of Balog would have been obvious to one of ordinary skill in the

Art Unit: 2443

art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to ensure that there is no confusion as to where the information or data stream is to be sent.

23. Claims 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Lo and Kisor.

24. Regarding Claim 7, the limitations of Claim 4 have been addressed.

Hameleers disclosed:

a. content detection layer is adapted to analyze if traffic is real time critical traffic, and is adapted to pass said traffic if traffic is real time critical, to a convergence layer adapted to handle real time critical data (*Column 15, Lines 12-16 and Lines 21-22 state that the distribution of media streams is based on content type and quality of service requirements. There are three different convergent layers that specialize in data and control, audio, or video*).

Hameleers did not explicitly disclose:

b. that said traffic is Ethernet traffic.

However, Kisor disclosed:

c. that said traffic is Ethernet traffic (*Column 2, Lines 39-40, 59-67 and Column 3, Lines 1-3 state that there is an Ethernet adapter that*

Art Unit: 2443

handles all Ethernet traffic. Once received, the communication path scheduler sends data that it receives to LAN [Ethernet] device if it is Ethernet data).

d. The utilization of the readily available Ethernet traffic of Kisor would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to keep the integrity of the data by knowing what kind of traffic is being transmitted.

25. Regarding Claim 8, the limitations of Claim 4 have been addressed.

Hameleers disclosed:

a. wherein said content detection layer is adapted to analyze if traffic is not real time critical traffic, and is adapted to pass said traffic, in case said traffic is not real time critical, to a convergence layer adapted to handle packet based data (*Column 15, Lines 21-22 state that there is a separate channel for data and control streams*).

Hameleers did not explicitly disclose:

b. that said traffic is Ethernet traffic

However, Kisor disclosed:

c. that said traffic is Ethernet traffic (*as discussed above in Claim 7*).

Art Unit: 2443

d. The utilization of the readily available Ethernet traffic of Kisor would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to keep the integrity of the data by knowing what kind of traffic is being transmitted.

26. Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Lo and Fant.

27. Regarding Claim 9, the limitations of claim 4 have been addressed.

Hameleers disclosed:

a. wherein said content detection layer is adapted to analyze if said traffic is packet based data traffic, and is adapted to pass said traffic, in case said traffic is real time critical data traffic, to a convergence layer adapted to handle real time critical data (*Column 15, Lines 12-16 and Lines 21-22 state that the distribution of media streams is based on content type and quality of service requirements. There are three different convergent layers that specialize in data and control, audio, or video. Packet based data would be sent to the data and control layer*).

Hameleers did not explicitly teach:

b. that said traffic is IEEE 1394 traffic.

Art Unit: 2443

However, Fant disclosed:

c. that said traffic is IEEE 1394 traffic (*Column 3, Lines 32-34 state that there is a network interface that handles IEEE 1394 data packets*).

d. The utilization of the readily available IEEE 1394t traffic of Fant would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to enable a higher transmission rate by using IEEE 1394 with a lower cost (*Fant, Column 3, Lines 32-34*).

28. Regarding Claim 10, the limitations of Claim 4 have been addressed.

Hameleers disclosed:

a. wherein said content detection layer is adapted to analyze if said traffic is real time critical data traffic, and is adapted to pass said traffic, in case said traffic is real time critical data traffic, to a convergence layer adapted to handle real time critical data (*Column 15, Lines 12-16 and Lines 21-22 state that the distribution of media streams is based on content type and quality of service requirements. There are three different convergent layers that specialize in data and control, audio, or video. Real time critical data would be sent to the video layer*).

Hameleers did not explicitly disclose:

Art Unit: 2443

- b. that said traffic is IEEE 1394 traffic.

However, Fant disclosed:

c. that said traffic is IEEE 1394 traffic (*Column 3, Lines 32-34 state that there is a network interface that handles IEEE 1394 data packets*).

d. The utilization of the readily available IEEE 1394t traffic of Fant would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to enable a higher transmission rate by using IEEE 1394 with a lower cost (*Fant, Column 3, Lines 32-34*).

29. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Lo and Wellig.

30. Regarding Claim 18, the limitations of Claim 13 have been addressed. Hameleers did not explicitly disclose:

a. wherein said device network is a wireless local area network (WLAN), or a HiperLAN/2 network.

However, Wellig disclosed:

Art Unit: 2443

b. wherein said device network is a wireless local area network (WLAN), or a HiperLAN/2 network (*Column 4, Lines 1-15 and Lines 29-34 state that a HiperLAN/2 network is being used*).

c. The utilization of the readily available HiperLAN/2 network of Wellig would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to enable a higher throughput.

31. Claims 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hameleers in view of Lo and Lappetelainen.

32. Regarding Claim 19, the limitations of Claim 13 have been addressed. Hameleers disclosed:

a. wherein the device network is adapted to exchange control messages and data packets between said first and second network device (*Column 15, Lines 21-22 as discussed in Claim 1, one of the layers is for data and control*).

Hameleers did not explicitly disclose:

b. that the exchange of data is according to a TDMA scheme.
However, Lappetelainen disclosed:

c. that the exchange of data is according to a TDMA scheme
(Column 2, Lines 18-29 state that a HiperLAN/2 system is based on TDMA).

d. The utilization of the readily available TDMA scheme of Lappetelainen would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to enable each stream to have a dedicated time slot for transmission.

33. Regarding Claim 20, the limitations of Claim 19 have been addressed. Hameleers did not explicitly disclose:

a. wherein the device network is adapted to reserve a set of time slots of said TDMA transmission scheme for a certain content specific connection.

However, Lappetelainen did disclose:

b. wherein the device network is adapted to reserve a set of time slots of said TDMA transmission scheme for a certain content specific connection *(Column 2, Lines 18-29 state that each connection is allocated a separate time slot wherein data is transmitted).*

c. The utilization of the readily available TDMA scheme of Lappetelainen would have been obvious to one of ordinary skill in the art in view of the teachings of Hameleers since all the claimed elements were known in the

Art Unit: 2443

prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to allow critical data the ability to have a strong connection for the time slot allotted to it.

Response to Arguments

34. Applicant's arguments with respect to Claims 1-24 filed 02/27/2009 have been fully considered but they are not persuasive.

In the remarks, applicant argued that:

a. In Claim 11 (now in Claim 1), the disassembling and reassembling of Lo is different from the claimed segmenting and reassembling data packets of applicant.

b. In Claim 11 (now in Claim 1), Lo does not disclose or suggest the at least two content specific convergence layers include a common part adapted to segment a data packet of said external traffic into a plurality of corresponding data packets of a device network's internal protocol, and adapted to reassemble data packets of said device network's internal protocol into corresponding data packets of the respective external traffic.

c. In Claim 1, Lo does not disclose or suggest the common part is adapted to segment data packets of said external traffic and reassemble data

Art Unit: 2443

packets of said device networks internal protocol for each of said at least two content specific convergence layers.

d. In Claim 1, Hameleers and Lo do not disclose or suggest all of the elements of amended Claim 1.

e. In Claims 21 and 24, Lo does not disclose the claimed steps of segmenting by a first device; transmitting from a first device to a second device; and reassembling by the second device.

f. Claims 6-10, 14, 15, 18-24 are dependent claims and inherit the deficiencies of the independent claims.

35. In response to (a), Lo does indeed disclose the segmenting and reassembling as claimed in Claim 1. Claim 1 recites "a common part adapted to segment a data packet of said external traffic into a plurality of corresponding data packets of a device network's internal protocol and adapted to reassemble data packets of said device network's internal protocol into corresponding data packets of the respective external traffic." Lo states "the bridge circuit [which is the common part] can be used to provide communications between different types of networks... or different types of protocols... When the data payload travels through different domains, the bridge circuit efficiently disassembles [segments] and reassembles the frame to encapsulate the data payload with a header and a trailer that correspond to the format of the particular domain to which the frame is destined."

Art Unit: 2443

36. In response to **(b)**, Lo does not disclose or suggest the at least two content specific convergence layers include a common part. However, in combination with Hameleers which includes the convergence layers, the combination does disclose this limitation. The common part of Lo (the bridge circuit) is combined with the convergence layers of Hameleers. This common part will handle the data transmission of payloads that are in different protocols.

37. In response to **(c)**, the combination of Hameleers and Lo disclose a common part [bridge circuit] that is adapted to segment data packets [disassemble] of said external traffic and reassemble data packets of said device networks internal protocol for each of said at least two content specific convergence layers.

38. In response to **(d)**, as discussed above, the combination of Hameleers and Lo do disclose all the elements of amended Claim 1.

39. In response to **(e)**, the combination of Hameleers and Lo disclose the claimed steps of segmenting by a first device; transmitting from a first device to a second device; and reassembling by the second device. The common part from Lo (bridge circuit) would be situated on the first and the second device. The first stream of data is gathered by the first device and is passed to a demultiplexer in order to separate the different streams of data into audio, video, and data. The stream of data is able to be passed in demultiplexed form to the second device which also contains separate convergence layers for audio, video, and data. As both devices are similar, they both include a multiplexer/demultiplexer (as Figure 5 #79 shows). The second device is able to multiplex the data stream into one

Art Unit: 2443

coherent form. If the devices needed to convert the data stream into a protocol that each can understand, the bridge circuit of Lo would be used.

40. In response to (f), Claims 6-10, 14, 15, 18-24 are dependent claims and as the independent claims are still deficient, the claims are also rejected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN C. NGUYEN whose telephone number is (571)270-5663. The examiner can normally be reached on Monday through Thursday with alternating Friday 7:30AM - 5:00PM, EST.

Art Unit: 2443

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S.C.N./
Examiner, Art Unit 2443
05/22/2009

/Tonia LM Dollinger/
Supervisory Patent Examiner, Art Unit 2443